

Short Curriculum Vitae

Andrea R. Nahmod

Contact Information.

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Personal.

Place of Birth: Buenos Aires, Argentina Citizenship: United States of America

Education.

Licenciada en Matemática, University of Buenos Aires, Argentina, Dec. 1985.

Ph.D. in Mathematics, Yale University, New Haven, CT December 1991

Postdoctoral Associate, Yale University, New Haven, CT, Spring 1992.

Ph.D. Thesis Advisor. Professor Ronald R. Coifman, Yale University, New Haven, CT.

Research Interests. *Harmonic Analysis, Partial Differential Equations and Geometry*

My current research lies at the overlap of harmonic and nonlinear Fourier analysis, and geometric nonlinear PDEs. In general terms it is concerned with:

- The behavior of nonlinear waves and solutions to nonlinear dispersive equations arising in geometry, ferromagnetism and gauge field theories; and
- Wave-packet analysis techniques and the study multilinear singular operators, including both non-translation invariant and non-tensorial settings. A future goal is to understand the behaviour of nonlinear operators with symbols whose singularities live on some variety.

These two areas relate to each other by way of decompositions, frequency interactions analysis and nonlinear estimates.

I am also interested in computational harmonic analysis and modern methods for compression and recovery of signals.

Appointments and Positions.

Member, Mathematical Science Research Institute, Berkeley, CA Nov.-Dec. 2005*

Visiting Scholar, Courant Institute, NYU, New York, NY Sept-Nov. 2005*

Member, Institute for Advanced Study, Princeton, NJ Sept. 2003– July 2004**.

Associate Professor, Univ. of Massachusetts, Amherst, MA Sept. 2002–present

Assistant Professor, Univ. of Massachusetts, Amherst, MA Sept. 1998 -Aug. 2002.

Member, Institute for Advanced Study, Princeton Sept.1997- Aug.1998.

Member, Mathematical Science Research Institute, Berkeley, CA Fall 1997.

Lecturer, The University of Texas at Austin, Austin, TX, 1994-1997.

Research Fellow, Macquarie University, Sydney, Australia, 1992-1994.

— Sponsored by Professor Alan McIntosh, Australian National University(current).

* On Sabbatical Leave Fall 2005

** On leave 2003-04 for IAS yearlong program on *Analysis and non-linear PDE*

Awards and Fellowships.

N.S.F. Grant DMS- 0503542, July 2005–2008.
N.S.F. Grant DMS- 0202139 , July 2002–2005.
N.S.F. Grant DMS-9971159, July 1999-2002
REU Supplement to DMS-9971159, Summer 2001.
N.S.F.- A.W.M. Travel Grant, 1995.
Yale University Fellowship 1986-1991.
Departmental Prize, Yale University, Dept. of Mathematics, 1986-1991.
Fulbright Travel Grant, August 1986-1990.

Doctoral Students.

- Nikolaos Tzirakis; 2004 Ph.D. in Mathematics at University of Massachusetts, Amherst. Dissertation research on dispersive PDEs and nonlinear Fourier analysis. Thesis title *Global well-posedness for some dispersive partial differential equations*. Awarded a Clay Institute Lifford Fellowship (Summer 2004) and IAS membership in 2004-2005. Postdoc. at University of Toronto (Toronto, Canada) 2005-2007. Currently Assistant Prof. University of Illinois at Urbana-Champaign 2007–

- Choonghong Tadahiro Oh; 2007 Ph.D. in Mathematics at University of Massachusetts at Amherst. Dissertation research on dispersive PDEs and nonlinear Fourier analysis: local and global well-posedness of 1-parameter family of periodic KdV-type (non-integrable) systems arising in atmospheric sciences. Thesis Title: *Well-posedness theory of a one parameter family of coupled KdV-type systems and their invariant Gibbs Measures*. Currently a Postdoc. at University of Toronto (Toronto, Canada) 2007-2010.

- Viktor Grigoryan, 2008 Ph.D. (expected) current Ph.D. advisee at Department of Mathematics, University of Massachusetts at Amherst. Dissertation research on geometric non-linear wave equations; in particular the stability of geodesic wave maps at critical regularity.